## MONODISPERSE TELECHELIC DIOL-BASED POLYURETHANES FOR USE IN GOLF BALLS

## **ABSTRACT**

A golf ball including a core and a cover layer including a curing agent and a polyurethane prepolymer formed from a polyisocyanate and a monodisperse telechelic polyol having a polydispersity of from about 1.0 to about 1.3, and having the formula:

$$T-Z_n-C-Y-C-Z_n-T$$

10

15

5

where  $\mathbf{Y}$  is at least one molecule or mixtures of molecules having at least two independently polymerized vinyl groups, such as 1,3-divinylbenzene or 1,4-divinylbenzene;  $\mathbf{C}$  is a hydrogenated or unsaturated block derived by anionic polymerization of at least one monomer selected from the group consisting of conjugated dienes, alkenyl-substituted aromatics, and mixtures thereof;  $\mathbf{Z}_n$  is a branched or straight chain hydrocarbon connecting group which contains  $\mathbf{n} = 1\text{-}50$  carbon atoms; and  $\mathbf{T}$  is hydroxyl.